

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference VEN 009/OI	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 01/ 43755	International filing date (day/month/year) 16/11/2001	(Earliest) Priority Date (day/month/year) 27/11/2000
Applicant DELTAGEN PROTEOMICS INC.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☒ furnished subsequently to this Authority in written form.

☒ furnished subsequently to this Authority in computer readable form.

☒ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☒ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☒ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

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☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 01/43755

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claim 92 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.: 90, 91
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

3-17, 68, 71 (complete) 1-2, 48-67, 74-89, 92 (partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 3-17,68,71 (complete) 1-2,48-67,74-89,
92 (partially)

Cadherin V perturbagen an subject-matter related thereto.

2. Claims: 18-32,69,72 (complete) 1-2,48-67,74-89,
92 (partially)

Cadherin VI perturbagen an subject-matter related thereto.

3. Claims: 33-47,70,73 (complete) 1-2,48-67,74-89,
92 (partially)

Cadherin XI perturbagen an subject-matter related thereto.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 90,91

Present claims 90-91 rely entirely on a functional feature for defining the scope of protection. The functional test involves testing whether a test compound interacts with a second undefined compound (identified by the method of claim 87) interacting with the polypeptide of claim 1, competitively displacing it. The claims cover compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compound/method by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, said claims have not been searched.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C07K14/705 C07K16/28 C12N5/10 G01N33/68
A61K38/17

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, MEDLINE, EMBASE, SEQUENCE SEARCH

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 646 250 A (SUZUKI SHINTARO) 8 July 1997 (1997-07-08) abstract, p. 2:43-4:52, 18:36-20:22, SEQ ID Nos 49,58, claims ---	67,68, 71, 74-79, 82-84,86
A	US 5 955 275 A (KAMB CARL ALEXANDER) 21 September 1999 (1999-09-21) --- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

17 January 2003

Date of mailing of the international search report

12.05.03

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>HUELSKEN J ET AL: "E-CADHERIN AND APC COMPETE FOR THE INTERACTION WITH BETA-CATENIN AND THE CYTOSKELETON" JOURNAL OF CELL BIOLOGY, ROCKEFELLER UNIVERSITY PRESS, NEW YORK, US, US, vol. 127, no. 6, PART 2, 1 December 1994 (1994-12-01), pages 2061-2069, XP002047791 ISSN: 0021-9525</p>	
A	<p>HE ET AL: "IDENTIFICATION OF C-MYC AS A TARGET OF THE APC PATHWAY" SCIENCE, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,, US, vol. 281, 4 September 1998 (1998-09-04), pages 1509-1512, XP002126219 ISSN: 0036-8075</p>	
A	<p>SPARKS A B ET AL: "Mutational analysis of the APC/beta-catenin/Tcf pathway in colorectal cancer" CANCER RESEARCH, AMERICAN ASSOCIATION FOR CANCER RESEARCH, BALTIMORE, MD, US, vol. 58, 15 March 1998 (1998-03-15), pages 1130-1134, XP002088512 ISSN: 0008-5472</p>	
A	<p>NOVAK A ET AL: "Signaling through beta-catenin and Lef/Tcf." CMLS CELLULAR AND MOLECULAR LIFE SCIENCES, vol. 56, no. 5-6, 30 October 1999 (1999-10-30), pages 523-537, XP002227597 ISSN: 1420-682X</p>	
A	<p>WO 00 63246 A (GOUR BARBARA J ;ADHEREX TECHNOLOGIES INC (CA); BLASCHUK OREST W (C) 26 October 2000 (2000-10-26)</p>	
A	<p>WO 00 64933 A (AKIYAMA TETSU ;TAGO KENICHI (JP); KYOWA HAKKO KOGYO KK (JP); NAKAM) 2 November 2000 (2000-11-02)</p>	
E	<p>& EP 1 180 525 A (KYOWA HAKO KOGYO CO., LTD) 20 February 2002 (2002-02-20)</p>	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/43755

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 5646250	A	08-07-1997	US	5597725 A		28-01-1997
			CA	2111573 A1		28-10-1993
			EP	1074618 A2		07-02-2001
			EP	0604603 A1		06-07-1994
			JP	7500019 T		05-01-1995
			WO	9321302 A1		28-10-1993
			US	5639634 A		17-06-1997
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US 5955275	A	21-09-1999	AT	224457 T		15-10-2002
			AU	745827 B2		11-04-2002
			AU	6543898 A		22-09-1998
			CA	2283261 C		02-07-2002
			DE	69808060 D1		24-10-2002
			DK	973943 T3		27-01-2003
			EP	0973943 A1		26-01-2000
			JP	2001514510 T		11-09-2001
			NO	994290 A		03-11-1999
			WO	9839483 A1		11-09-1998
			US	2002018992 A1		14-02-2002
			US	2002132229 A1		19-09-2002
			US	6025485 A		15-02-2000
			US	2002081688 A1		27-06-2002
			US	2002086386 A1		04-07-2002
			US	2002177125 A1		28-11-2002
			US	2002098503 A1		25-07-2002
			AU	6161698 A		08-09-1998
			EP	0977885 A1		09-02-2000
			WO	9836097 A1		20-08-1998
			US	2002090605 A1		11-07-2002
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WO 0063246	A	26-10-2000	US	6303576 B1		16-10-2001
			AU	4478900 A		02-11-2000
			WO	0063246 A2		26-10-2000
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WO 0064933	A	02-11-2000	AU	4314100 A		10-11-2000
			CN	1364172 T		14-08-2002
			EP	1180525 A1		20-02-2002
			WO	0064933 A1		02-11-2000

